

# THE SYDNEY EVENING SCHOOL

UNDER THE AUSPICES OF THE  
CAPE BRETON BRANCH OF THE  
DALHOUSIE ALUMNI ASSOCIATION



SESSION 1905-1906

## CATALOGUE

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# THE SYDNEY EVENING SCHOOL



## BOARD OF MANAGEMENT

The Board of Management consists of the members  
of the Executive Committee of the Cape Breton  
Branch of the Dalhousie Alumni Association  
and the Instructors of the School

*President of the Board, H. P. DUCHEMIN, B.A.*

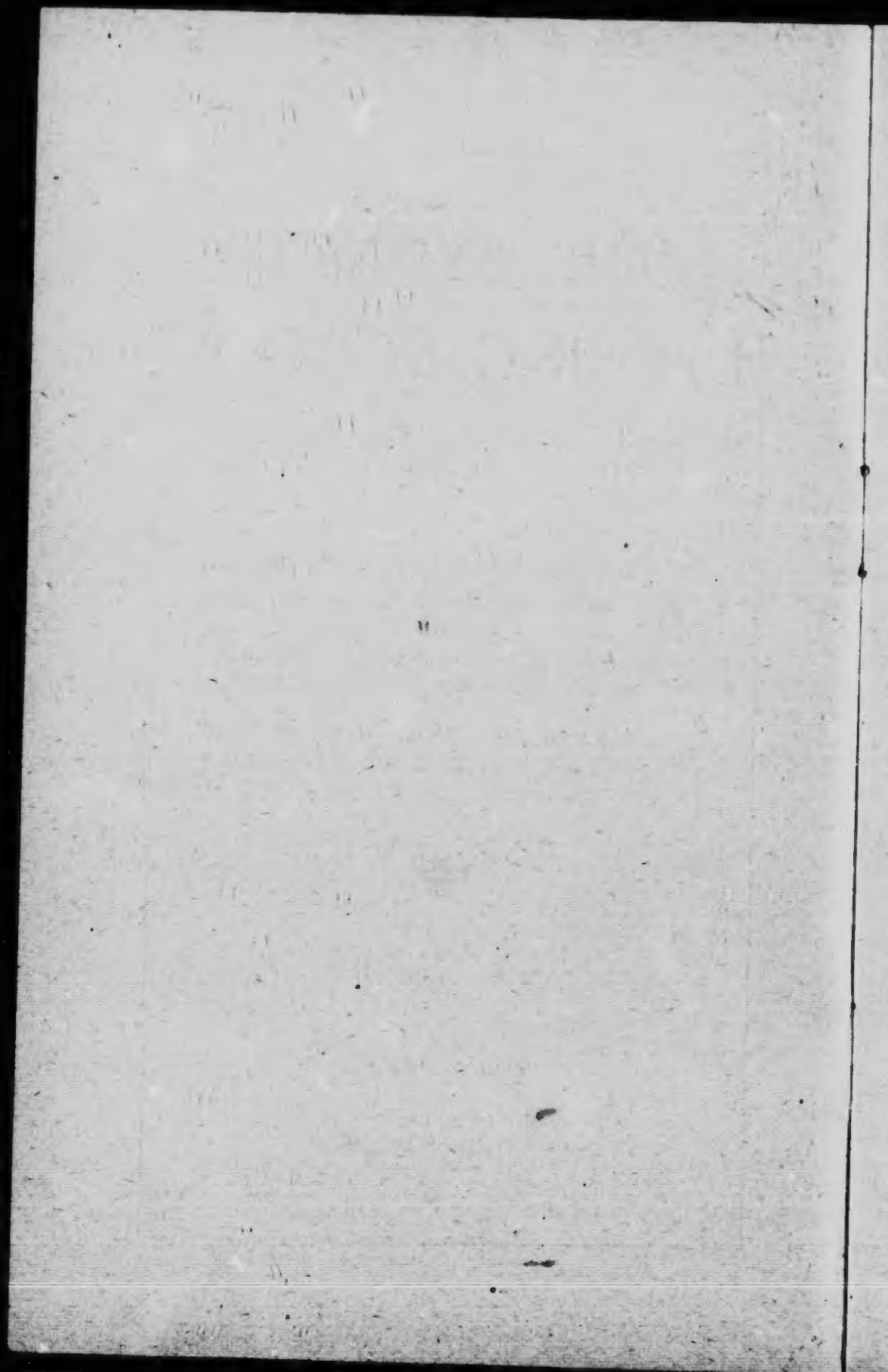
*Secretary, - - C. D. LIVINGSTONE, LL.B.*



SESSION 1905-1906

OPENS MONDAY, OCTOBER 2, 1905

CLOSES FRIDAY, MAY 4, 1906



## STAFF OF INSTRUCTION

- ARCHIBALD MACMECHAN, B.A., PH.D., Munro Professor of English Language and Literature, Dalhousie Univ.
- E. MACKAY, B.A., PH.D., McLeod Professor of Chemistry, Dalhousie University.
- D. A. MURRAY, B.A., PH.D., Professor of Mathematics, Dalhousie University.
- F. H. SEXTON, S.B., Assistant Professor of Mining and Metallurgy, Dalhousie University.
- REV. JAMES CARRUTHERS, Professor of Elocution at Queen's, Dalhousie and Pine Hill Colleges.
- REV. D. M. MACADAM, B.A. (St. F.X.), P.P.
- W. A. SINNAMON, Draughtsman, Dominion Iron and Steel Company.
- D. McD. CAMPBELL, M.A., B.Sc., C.E., Assistant City Engineer.
- F. I. STEWART, B.A. (Dal. and Lond.).
- C. S. CAMERON, B.A. (Dal.) Secretary Dominion Iron and Steel Company.
- W. CROWE, LL.B. (Dal.)
- G. A. R. ROWLINGS, B.A., LL.B. (Dal.)
- GEORGE D. MCDUGALL, C.E., Mechanical Superintendent Dominion Iron and Steel Company.
- REV. W. H. SMITH, M.A., B.D., PH.D.
- D. S. MCINTOSH, B.A. (Dal.)
- REV. J. A. GREENLEES, M.A. (Phil., Glasgow)
- R. M. LANGILLE, M.A., LL.B. (Engl.)
- IRA. W. CAMERON, M.A. (Dal.)
- C. J. BURCHELL, M.A., LL.B. (Dal.)
- FINLAY McDONALD, LL.B., (Dal.)
- HECTOR Y. McDONALD, B.A. (St. F.X.)
- A. A. MCINTYRE, B.A. (St. F.X.) LL.B. (Dal.)
- I. C. MACKIE, B.A. (Dal.)
- J. E. A. MACLEOD, B.A., LL.B. (Dal.)
- C. D. LIVINGSTONE, LL.B. (Dal.)
- H. P. DUCHEMIN, B.A. (Dal.)

## SCOPE OF WORK

The aim of the Sydney Evening School is to bring competent instruction, along practical lines, within the reach of all who desire to improve themselves in an educational way. The course of instruction prescribed for the term of 1905-1906 has been especially prepared with a view to the requirements of the industrial portion of the community. These classes, it is hoped, will prove helpful to all who are ambitious to excel as skilled workmen in whatever trade or occupation they may be employed. But the School is for the benefit of all, whether mechanics or not, who wish to avail themselves of its classes; and arrangements have been made to provide instruction in branches not indicated in the Syllabus, should a sufficient number of students ask for the formation of such additional classes.

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## OPENING OF SESSION

The session of 1905-1906 will open on Monday, the 2nd day of October, 1905, at 7.30 o'clock, p.m. Arrangements are being made to provide comfortable and convenient accommodation for the classes. The place of meeting for the session will be announced through the local press. It is important that all who intend to enroll themselves in any of the classes should, if at all possible, be present on the first evening of the session.

Classes will be discontinued from December 22, 1905 to January 8, 1906.

The session will close on May 4, 1906.

## COURSES OF STUDY

[The work of the different classes will be correlated freely. Over-lapping and treatment of the same subject in different courses will frequently occur].

### MECHANICAL DRAWING, COURSE I

*Tuesdays, 7.30 p.m. to 9.30 p.m.*

Instructor, D. MCD. CAMPBELL, M.A., B.Sc., C.E.

**GEOMETRICAL DRAWING.**—Use of instruments; problems on lines, angles, circles, triangles, etc.; drawing of simple mathematical curves, parabola, ellipse, hyperbola, spirals, helices, etc. Use of scales.

**PROJECTIONS.**—Drawing of prisms, cylinders, pyramids, etc., to illustrate the Theory of Projection, which is at the basis of all mechanical draughting; conic sections, development of surfaces, etc. Intersections.

### MECHANICAL DRAWING, COURSE II

*Thursdays, 7.30 p.m. to 9.30 p.m.*

Instructor, W. A. SINNAMON, Draughtsman Dominion Iron and Steel Company

Drawing of simple machine parts, increasing its complexity as the student advances. Some of the simpler kinds of work in machine design. Details of the course to be announced by the Instructor.

### ARITHMETIC

*Mondays, 8.30 p.m. to 9.30 p.m.*

Instructors: { D. S. MCINTOSH, B.A., B.Sc.  
C. D. LIVINGSTONE, LL.B.

Decimals; metric system; fractions.

Weights and measures and exercises on their use.

Mensuration of surfaces and practical applications, such as finding the cost of papering, plastering, etc. Mensuration of the cube, prism, cylinder, cone, sphere, with practical applications to brick work, timber, etc. The



unitary method, ratio and proportion, percentages, interest, discount, stocks and shares.

Use of formulae.

## MENSURATION

*Fridays, 8.30 p.m. to 9.30 p.m.*

Instructors { G. A. R. ROWLINGS, B.A., LL.B.  
IRA W. CAMERON, B.A.

Areas of rectilinear figures.

Lengths of lines in rectilinear figures.

Circle, length and area of.

Ellipse, area of.

Volumes and surfaces of simple solids.

Approximate determination of areas; trapezoidal and one-third rules.

Use of logarithms and slide rule.

## ALGEBRA

*Mondays, 7.30 p.m. to 8.30 p.m.*

Instructors { A. A. McINTYRE, B.A., LL.B.  
H. Y. McDONALD, B.A.  
I. C. MACKIE, B.A.

Very simple equations and problems. Working with formulae; arithmetical substitutes, addition, subtraction, multiplication, division, simple factoring. Fractions, very elementary treatment. Simple equations with one or two unknowns. Quadratic equations.

The work will be as elementary as possible, and will be illustrated by arithmetical explanations and examples.

## GEOMETRY AND TRIGONOMETRY

*Fridays, 7.30 p.m. to 8.30 p.m.*

Instructor, F. I. STEWART, B.A.

An elementary course of instruction to be given with a view to the practical application of these subjects to the work of the classes in Mechanical Drawing and workshop Mathematics.

## ENGLISH LANGUAGE AND COMPOSITION

*Wednesdays, 7.30 p.m. to 9.30 p.m.*

Instructors { C. S. CAMERON, B.A.  
W. CROWE, LL.B.  
C. J. BURCHELL, M.A., LL.B.

Study of the structure of sentences, orthography, punctuation, capitalization. Class exercises in dictation, expansion, contraction and simple work in paraphrasing. The meaning and use of abbreviations and signs commonly employed in writing. Letter writing, business and friendly correspondence. Analysis of the parts of a letter.

Exercises to develop correctness of diction in ordinary correspondence. Business forms including Promissory Notes, Bills of Exchange, Invoices, Receipts, etc. Exercises in narrative and descriptive composition. Form to be observed in letters for publication and items for the press.

## ENGLISH LITERATURE

*Mondays from 8 p.m.*

Instructors { ARCHIBALD MACMECHAN, B.A., Ph.D.  
H. P. DUCHEMIN, B.A.  
J. E. A. MCLEOD, B.A., LL.B.

**SHAKESPEARE.**—This part of the work will be approached from the historical side and the following topics will be discussed in class: The Elizabethan Age, The New Learning, The Development of the English Drama, The Life of Shakespeare.

For class reading: "As you Like it," "Henry V," "Hamlet," and "Othello."

In December Dr. MacMechan will deliver a series of five lectures on Shakespeare in the following order:

1. "Shakespeare's Plain People."
2. "A Defence of Falstaff."
3. "Shakespeare's One Hero."
4. "As You Like It."
5. "Othello."



TENNYSON.—"The Lady of Shalott," "Oenone," "The Lotus-eaters," "Ulysses," "The Day-dream," "St. Agnes' Eve," "Sir Galahad," "The Revenge," "Mariana," "Mariana in the South," "The Deserted House," "The Dying Swan," "A Dream of Fair Women," "Morte d'Arthur," "The Vision of Sin," "To Virgil," "Vastness," "Wages," "The Voyage," "The Higher Pantheism," "Break, Break, Break," "The Palace of Art," "The Gardener's Daughter," "Dora," "In Memoriam," "The Princess," "Will," "Crossing the Bar," "Merlin and the Gleam to J.S.," "The Daisy," "The Defence of Lucknow," "The Northern Farmer."

Dr. MacMechan's course of lectures on Tennyson will be delivered toward the close of the term. They will embrace the following subjects and will be given in the order mentioned :

1. "The New Note,"—Poems Chiefly Lyrical.
2. "Coming into His Own,"—English Idylls.
3. "In Memoriam."
4. "The Idylls of the King,"—Elaine.
5. "The Latest Stage,"—Rizpah.

## METALLURGY

Instructor, FREDERIC H. SEXTON, S. B.

Professor Sexton will deliver a course of lectures on the Metallurgy of iron and steel along the lines indicated in the following plan :

Metallurgical Chemistry. Chemistry at high altitudes of heat—Endothermic and Exothermic Reactions. Illustrations.

Iron Blast Furnace—Ores of Iron—Fuels—Fluxes. General arrangement of Blast Furnace Plant. Chemistry of the Blast Furnace. Practical calculation of the Blast Furnace. Charge. Products of the Blast Furnace.

Properties and uses of Cast Iron.

Foundry Practice.

Wrought Iron. Production. Direct and Indirect

Processes. Charcoal. Hearth and Puddling Processes.

Steel. General Properties and uses of Steel.

Acid Bessemer Process. General arrangement of Bessemer Plant. Raw Materials. Operation of Bessemer Process.

Basic Bessemer Process.

Differences of the Basic and Acid Bessemer Processes. Bessemer Process in general.

Principles and Chemistry of the Bessemer Process. Heat Evolution.

Products and Cost of Operation.

Open Hearth Process.

Open Hearth Process in General.

Salient Points of Difference between Bessemer and Open Hearth.

The Chemistry and Heat Evolution in the Open Hearth.

Acid Open Hearth.

Method and Principles of Operation. Ore and Pig Process. Ore, Pig and Scrap Process.

Basic Open Hearth.

Practical Construction of the Basic Open Hearth Furnace. General Arrangement of Plant. Gas Producers. Mode of Operation. Chemistry of the Basic Open Hearth Process. Function of the Slag. Illustrations of Working from typical Plants in operation. Continuous Open Hearth Process. Tapping and Casting. Comparison of Bessemer, Acid and Basic Open Hearth Steel.

Rolling of Steel.

Engines and Motors for driving Rolls. Work of Rolls. Passes of Rolls. Heating Furnaces. Rolling of Rails. Examples of Rolling Mills in Practice.

Influence of Elements upon the Properties of Steel.

Influence of Carbon, Manganese, Silicon, Sulphur, Phosphorus, Chromium, Vanadium, Tungsten, Nickel, Molybdenum, etc.

Metallography.

Properties of Solutions. Properties of Alloys. Con-

stitution of Steel as revealed by the Microscope. Theory of the Constitution of Steel. Ferrite, Pearlite, Cementite, Martensite, etc. Importance of Metallography.

### PRACTICAL LECTURES

Lectures will be given during the term for mechanics and shopworkers, dealing with the difficulties arising in their every day work, and are designed to meet the wants of those who desire to advance in the particular trade in which they are engaged but are not in a position to avail themselves of the regular course of instruction.

### LANGUAGES

Arrangements have been made for instruction in Greek, Latin, French and German, if a sufficient number of students ask for the formation of classes in any one or more of these branches.

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### FEES

Fees are payable to the Secretary on the first evening of the session, according to the scale mentioned below. The classes are numbered as follows :

1. Mechanical Drawing (Course I).
2. Mechanical Drawing (Course II).
3. Arithmetic.
4. Mensuration.
5. Algebra.
6. Geometry and Trigonometry.
7. English (Language and Composition).
8. English Literature.
9. Metallurgy.

When only one class is taken the fee will be \$5 00 ; for every additional class a fee of \$2.00 will be payable.

On payment of the prescribed fee for any one or more of the subjects mentioned above the student's name will be entered on the appropriate register, and he will receive a ticket from the Secretary entitling him to attend throughout the term the classes in which he is registered.

## AFFILIATION WITH DALHOUSIE

The Sydney Evening School is in affiliation with Dalhousie University. In the case of students who look forward to attendance at the University, and who are certified by the instructors of the Evening School as possessing a satisfactory degree of efficiency in any one or more of its classes, credit for the work so certified will be given in the matriculation or undergraduate course at the University.

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## FURTHER INFORMATION

Persons wishing to obtain any further information or desiring copies of the catalogue are requested to communicate with the Secretary, C. D. Livingstone, P.O. Box 420 Sydney, N.S.

It will greatly help the organization of the classes if persons intending to enter the School will forward their names to the Secretary not later than one week before the opening of the term.

